



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,145	04/01/2004	Tatsuyuki Miura	016907-1654	7350

22428 7590 07/16/2004

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

CHEN, SOPHIA S

ART UNIT	PAPER NUMBER
----------	--------------

2852

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/814,145

Applicant(s)

MIURA, TATSUYUKI

Examiner

Sophia S. Chen

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/1/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Priority

1. This application is a continuation of Serial No. 10/406,459, filed April 4, 2003, which is a continuation of application Serial No. 09/922,704, now US Pat. No. 6,564,035, filed August 7, 2001.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 3, 5-9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al. (US Pat. No. 5,815,772)

The patent discloses an image forming apparatus and method comprising: a sheet feed roller 24 for feeding an object (paper) onto which an image is to be transferred (column 3, lines 21-28); a first carrying path 26 on which the object (paper) fed by the sheet feeding roller 24 is carried (column 3, lines 21-28 and Figure 1); an image carrier 16; a transfer section 30 for transferring the image onto the object (column 3, lines 24-25); a transfer device 28 provided opposite to the image carrier 16 with the first carrying path 26 interposing therebetween (Figure 1); a fixing section 32 for fixing the transferred image on the object (column 3, lines 26-28); a discharge section (or a

Art Unit: 2852

receiving section) 38; a carrying device (or a discharge roller pair) 36 for carrying the object, onto one surface of which an image is transferred by the transfer device 28, toward the discharge section 38 by a predetermined distance, and then carrying the object in a direction (reversed) away from the discharge section 38 (column 3, lines 34-43); a second carrying path 40 on which the object carried in the direction away from the discharge section 38 by the carrying device 36 is guided from a downstream side in the object carrying direction of the first carrying path 26 and is guided in an inverted state to an upstream side of the first carrying path 26 (Figure 1); the second carrying path 40 includes a first roller pair 42 upstream of the object carrying direction, a second roller pair 48 downstream of the object carrying direction, and a third roller pair 44 between the first and second roller pairs 42 and 48 (Figure 1); the third roller pair 44 is provided at a substantially center portion of the second carrying path 40 (Figure 1); the second carrying path 40 connecting the downstream side and the upstream side in the object carrying direction of the first carrying path 26, and forming a loop in incorporating with the first carrying path 26 (Figure 1); the second carrying path 40 having a corner part and a substantially straight part, and the third roller pair 44 is provided in the substantially straight part (Figure 1); and the second carrying path 40 having three roller pairs 42, 44, and 48 along the object carrying direction (Figure 1).

The patent further discloses the second carrying path 40 which merges with the first carrying path 26 at a position upstream in the object carrying direction with respect to the image carrier 16 and downstream in the object carrying direction with respect to the sheet feed roller 24 and at a position downstream in the object carrying direction

Art Unit: 2852

with respect to the fixing section 32; the sheet feed device 24 being provided outside the loop formed of the first and second carrying paths 26 and 40 (Figure 1); the discharge roller pair 36 sending the object in the direction away from the receiving section 38 to guide the object to the second carrying path 40 from the position downstream with respect to the fixing section 32 (Figure 1); and a step of carrying the object which has been carried upstream of the first carrying path in an inverted state, to the transfer device 28 on the first carrying path 26, transferring an image onto the other surface of the object, and discharging the object to the discharge section 38 (column 3, lines 44-54 and Figure 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al, in view of Tsuchitai (US Pat. No. 5,872,900; cited in Form PTO-1449).

Saito et al., as discussed above, further discloses a detection sensor 90 for detecting the object.

Saito et al. differs from the instant claimed invention in not disclosing the detection sensor being provided in the vicinity of each of the first and second roller pairs.

Tsuchittoi discloses an image forming apparatus comprising a first carrying path (from reference numeral 211 to reference numeral 216; Figure 2); a second carrying path (from reference numeral 231 to reference numeral 236; Figure 2); the second carrying path including a first roller pair 231, a second roller pair 234, and a third roller pair 233 between the first and second roller pairs 231 and 234; first and second sensors 232 and 235 being provided in the vicinity of each of the first and second roller pairs 231 and 234 (Figure 2); the first sensor 232 being provided in the vicinity of a beginning portion of the second carrying path (Figure 2); and the second sensor 235 being provided in the vicinity of an end portion of the second carrying path (Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the multiple sensors and their positions as taught by Tsuchittoi to the second carrying path of Saito et al. to timely control the paper (object), with the image on one side of the paper, back to the first carrying path for transferring image on the opposite side of the paper (Tsuchittoi; column 6, lines 26-67).

Other Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Park et al. (US Pat. No. 5,953,575) discloses an image forming apparatus comprising a first carrying path; a discharge tray; a discharge roller pair being rotatable in normal and reverse direction; a second carrying path; and the second carrying path including three roller pairs.

Art Unit: 2852

Yanagi (US Pat. No. 6,041,213) discloses an image forming apparatus comprising a first carrying path; a discharge tray; a discharge roller pair being rotatable in normal and reverse direction; a second carrying path; and sheet sensors.

Kimoto (US Pat. No. 6,424,365) discloses an image forming apparatus comprising a first carrying path; a discharge tray; a discharge roller pair being rotatable in normal and reverse direction; a second carrying path; and the second carrying path including three roller pairs.

Makita (JP 02-176766) discloses an image forming apparatus comprising a first carrying path; a discharge tray; a discharge roller pair; a second carrying path; and sheet sensors.

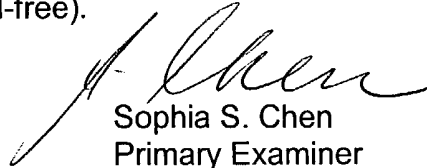
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (703) 308-7617. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
July 14, 2004